

ABSTRACT

The present invention relates to a method for producing an alcohol and/or a ketone from a corresponding alkene(s) in a gas phase in the presence of water vapor by the use of an oxide catalyst. According to the present invention, there is provided a method for producing an alcohol and/or a ketone by bringing a starting material containing an alkene(s), as a gas phase into contact with an oxide catalyst in the presence of water vapor to carry out the reaction, wherein the oxide catalyst satisfies the following requirements: (a) it comprises an oxide(s) of molybdenum and/or tin, and (b) the amount of carbonaceous substances accumulated on the oxide catalyst is controlled to be within a range of 0.1 to 10% by mass, during the reaction.